ESO 869

RAIL TRANSPORTATION FOR OHIO AGRICULTURE

By

Michael J. Pesch and Donald W. Larson

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This is the third interim report on a series of studies analyzing transportation services for Ohio agriculture. The authors wish to thank Karlene Robison, Janice Christensen, and Kathy Weaver for their most valuable assistance in the preparation of this report.

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Rail Transportation for Ohio Agriculture

Introduction

In 1977, 443.3 million bushels of grain were shipped from Ohio to grain deficit areas in the United States and to foreign export facilities (Table 1). This volume is nearly double that of 1970 when 227.1 million bushels were shipped from Ohio. Of all 1977 grain movements from Ohio to out-of-state destinations, more than half (52.3%) moved by railroad. Although it is no surprise to most people that railroads play a vital role in the grain marketing system, the continued growth of the export grain market and the advantages of speed and energy-efficiency in shipping commodities by rail have raised the importance of railroads to new levels for agriculture.

This report will review the Ohio railroad network as it serves Ohio agriculture. A general description of the Ohio rail system will be followed by analysis of the primary issues of concern to agricultural railroad users. Issues to be discussed include the Northeast Rail Service Act of 1981 and its effect on railroad abandonment, the initial impacts of the Staggers Rail Act of 1980 in deregulating the railroad industry, and whether the level of state and federal government intervention in the railroad industry should be increased or decreased.

Ohio Rail System

With approximately 6,775 milles of track in its system, the Ohio rail network has more track mileage per square mile than any other state in the nation. Of the 29 railroad companies operating

Table 1: Grain and Oilseed Shipments to Out-of-State Destinations by Mode of Transportation as Reported by Elevator and Grain Processing Firms in Ohio, 1977

	MODE OF TRANSPORTATION			
Commodity	Truck	Rail	Water	Total
	- - - - (000 bu.) - - - -			
Corn	11,290	163,592	113,397	288,279
Soybeans	4,961	42,222	54,245	101,428
Wheat	5,662	21,720	17,201	44,583
Oats	3,079	5,970	0	9,049
Total Grain	24,992	233,504	184,843	443,339

Source: Hennen, et al.

in Ohio, ten are classified as Class I carriers (any carrier with annual total gross revenues of more than $50 million), 4 are Class II or Class III "line haul" carriers (total gross revenues of $10 million-$50 million and under $10 million, respectively), and 15 are switching terminal companies (Table 2). However, the four major Class I carriers (Conrail, Norfolk and Western, Chessie[1/] and Detroit, Toledo and Ironton) operate over 91 percent of the track in Ohio.

Table 3 gives the most recent financial information on the primary rail carriers in Ohio. It is interesting to note that only Conrail shows a net income loss for the years 1978 and 1979. The fact that every other primary rail carrier in Ohio has been making money dispells a common belief held by the general public that most railroads today are money losers.

The United States Department of Transportation (USDOT) provides the following classification system used in identifying the traffic densities of Ohio railroad lines. Figure 1 depicts Ohio's railroad lines under these standards.

System Classification

A-Mainline	20 million or more gross tons per year
B-Mainline	Less than 20 million gross tons but at least 5 million gross tons per year
A-Branchline	Between 1 and 5 million gross tons per year
B-Branchline	Less than 1 million gross tons per year

Rail shipments of 12 different types of commodites represent 96 percent of the total rail tonnage originating and/or terminating

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[1/] The Chessie System is the result of a merger between the Baltimore and Ohio Railroad and the Chesapeake and Ohio Railway.

Table 2: Railroad Mileage Operated in Ohio, December 31, 1977

Railroad (January 1978 consist of roads)	Miles Operated		Percent operated within state
	Entire Line	Within state	
CLASS I LINE-HAUL RAILROADS:			
Baltimore & Ohio RR	5404	1672	30.9
Bessemer & Lake Erie RR	221	5	2.3
Chesapeake & Ohio Ry.	4883	413	8.5
Cincinnati, New Orleans & Tex. Pac. Ry.	371	2	0.5
Consolidated Rail Corp.	19222	3167	16.5
Detroit, Toledo & Ironton RR	588	463	78.7
Louisville & Nashville RR	6636	2	*
Norfolk & Western Ry.	7554	1564	20.7
Pittsburgh & Lake Erie RR	274	86	31.4
Ann Arbor RR	292	4	1.4
Total Class I	45153	7374	16.3
CLASS II AND III LINE-HAUL RAILROADS:			
Akron, Canton & Youngstown RR Co.	171	171	100.0
Detroit & Toledo Shore Line RR	50	4	8.0
Lorain & West Virginia Ry.	25	25	100.0
Youngstown & Southern Ry.	49	42	85.7
Total Class II and III	295	242	82.0
Total Class I, II and III	45456	7624	16.8

* Less than 0.05 percent
** Less than 1/2 mile.

(Continued on next page)

Table 2: Cont'd

December 31, 1977

Railroad (January 1978 consist of roads)	Miles operated: Entire Line	Miles operated: Within State	Percent operated within state
SWITCHING AND TERMINAL COMPANIES			
Akron & Barberton Belt RR	42	42	100.0
Atchison Bridge Co.	**	**	100.0
Cleveland Union Terminal Co.	12	12	100.0
Covington & Cincinnati Elevated RR & Transfer Bridge Co.	5	2	40.0
Cuyahoga Valley Ry.	14	14	100.0
Dayton Union Ry.	9	9	100.0
Fairport, Painesville & Eastern RR	20	20	100.0
Lake Erie & Eastern RR	128	128	100.0
Lake Terminal RR	21	21	100.0
Lakefront Dock & Railroad Terminal Co.	61	61	100.0
Newburgh & South Shore Ry.	41	41	100.0
River Terminal Ry.	28	28	100.0
Toledo Terminal RR	74	74	100.0
Union Depot Co.	3	3	100.0
Youngstown & Northern RR	6	6	100.0
Total Switching	464	461	99.4

* Less than 0.05 percent.
** Less than 1/2 mile.

Source: Ohio Rail Transportation Authority

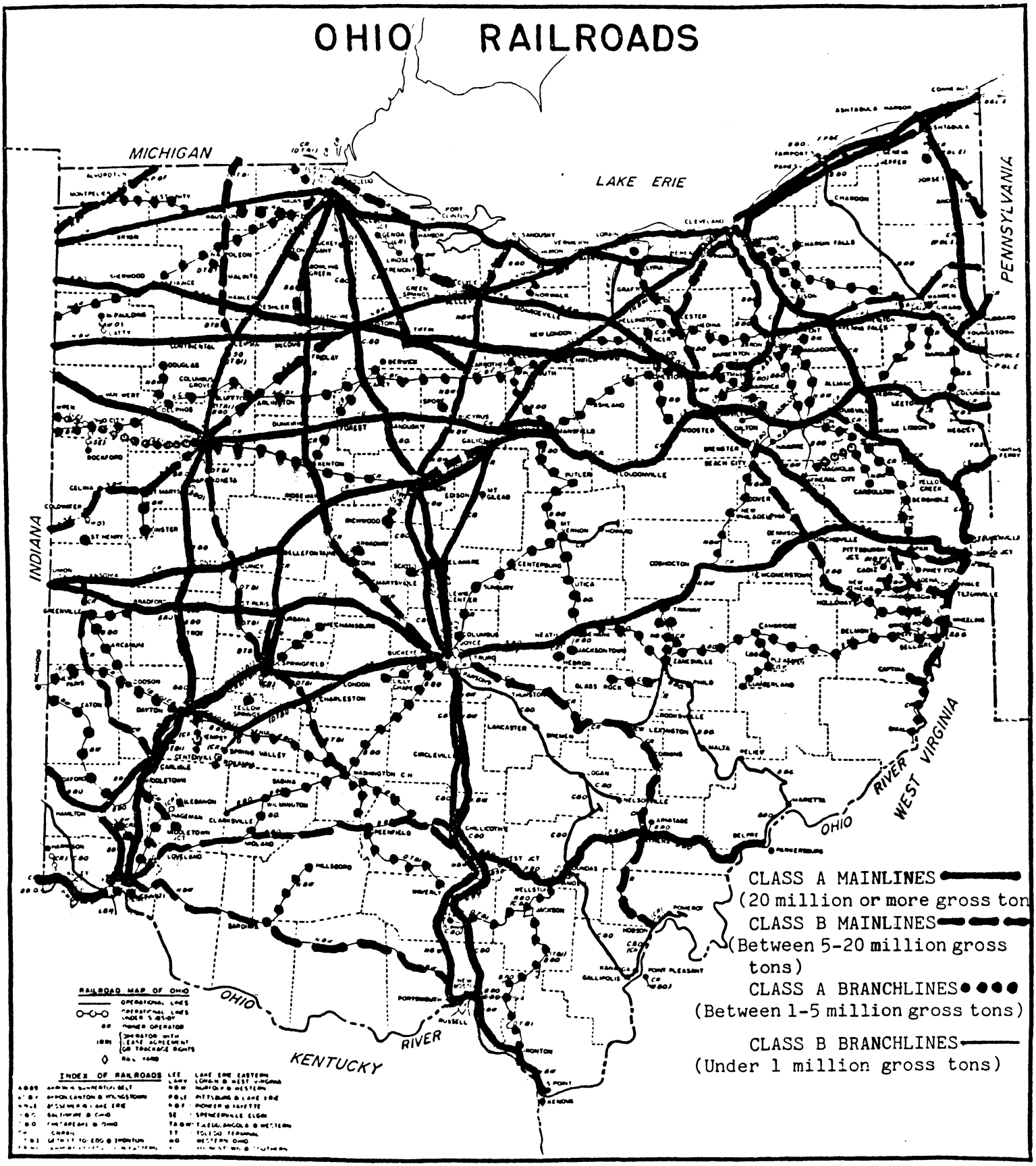
Table 3: 1979 Financial Characteristics of Major Class I Ohio Railroads
(dollar figures stated in thousands 000's)

(dollar figures stated in thousands 000's)

RAILROAD	OPERATING REVENUES		OPERATING EXPENSES		OPERATING RATIO		NET INCOME	
	1978	1979	1978	1979	1978	1979	1978	1979
B&O	830,746	922,248	770,856	857,172	92.8	92.9	52,029	56,068
B&LE	92,776	121,449	61,684	83,622	66.5	68.9	16,806	19,833
C&O	672,110	812,635	660,390	746,494	98.3	91.9	68,865	118,129
CONRAIL	3,310,637	3,370,466	3,990,607	4,260,552	120.5	113.0	(681,484)	(487,631)
DT&I	70,977	84,264	67,636	80,857	95.2	96.0	3,104	3,130
N&W	996,476	1,430,894	880,008	1,124,510	88.3	78.6	167,597	198,596
P&LE	65,865	78,956	50,548	58,095	76.8	73.6	7,707	11,260

Source: Ohio Rail Transportation Authority

Figure 1: Ohio's Mainline and Branchline System



Source: Ohio Rail Transportation Authority

in Ohio. Table 4 indicates the distribution of rail shipments in Ohio for each of these major commodities. Coal and metallic ores make up 54 percent of total rail tonnage for the top twelve commodites while rail tonnage for each of the remaining ten commodities averages only 4.5 percent. Farm products comprise only 4 percent of major rail commodity movements.

Ohio is a net importer of rail-shipped goods primarily because the state receives approximately 50 percent of its annual coal requirements from out-of-state sources (Table 5). This high demand for imported coal stems from environmental restrictions which limit the use of the high sulphur content coal mined in Ohio.

Revenue Densities Among Commodities

The Ohio Rail Transport Authority (ORTA) reports that in 1978 farm products generated only 1.7 cents per ton mile. Coal and ore shipments are also low-revenue commodities, generating 2.6 and 3.3 cents per ton mile respectively. High revenue items such as transportation equipment (9.2 cents per ton mile) and scrap (6.1 cents per ton mile) helped raise the average revenue for all 1978 Ohio rail shipments to 3.7 cents per ton mile.

ORTA points out that the variability in revenue density among commodities is especially significant for marginal rail carriers. A carrier seeking ways to cut costs will closely evaluate the advantages and disadvantages of continuing branchline service for farm products and other low-revenue items.

Unit Train Operations in Ohio

The concept of transporting bulk commodities by unit train

Table 4: Major* Rail Commodity Movements in Ohio

STCC Code	Commodity	Inbound tons	% I/B	Outbound tons	% o/B	Intrast. tons	% I/S	Total	% Total
01	Farm products	235,800	*	5,858,500	11	175,900	1	6,270,200	4
10	Metallic ores	1,795,100	3	19,251,200	35	7,179,300	32	28,225,600	20
11	Coal	38,933,600	62	3,777,200	7	4,688,700	21	47,399,500	34
14	non-metallic minerals, exc. fuel	1,877,000	3	4,226,500	8	2,134,300	10	8,237,800	6
20	food kindred products	2,479,200	4	2,544,200	5	309,100	1	5,332,500	4
26	pulp, paper allied prod.	2,638,500	4	840,900	2	21,200	*	3,500,600	2
28	Chemicals, allied prod.	3,681,000	6	2,437,700	4	759,300	3	6,878,000	5
29	petroleum, coal products	2,396,100	4	2,595,000	5	1,026,400	5	6,017,500	4
32	clay, concrete, glass, stone	2,167,100	3	2,438,500	4	134,400	1	4,740,000	3
33	primary metal products	2,997,500	5	5,544,900	10	3,168,900	14	11,711,300	8
37	transportation equipment	1,693,300	3	3,929,700	7	244,800	1	5,867,800	4
40	waste, scrap materials	2,073,800	3	1,765,700	3	2,571,800	11	6,411,300	5
TOTALS		62,968,000	100	55,210,000	100	22,414.100	100	140,592,100	100

* 12 Major Commodities moved in Ohio in 1978; accounts for 96% total rail tonnage in Ohio.

Source: 1978 ICC 1% Waybill Sample

Source: Ohio Rail Transportation Authority

Table 5: Ohio Coal Use by Source, 1970 - 1977
(Thousand Short Tons)

Year	Western Coal	Eastern Coal*	Total Imports	Ohio Coal	Total Use
1970	0	31,822	31,822	35,553	67,375
1971	0	29,513	29,513	33,603	63,116
1972	0	21,665	21,665	35,130	67,795
1973	0	32,348	32,348	33,409	65,557
1974	1,172	35,426	36,598	33,044	69,642
1975	1,433	33,118	34,551	33,468	68,019
1976	3,372	32,191	35,563	35,401	70,964
1977	4,841	33,051	37,892	36,240	74,132

* Excludes Ohio
Source: Energy Data Reports, U.S. Department of Energy

has gained widespread popularity in recent years. The considerable energy and handling efficiencies gained in moving bulk items in unbroken 50-100 car "units" from one origin to one destination have caused the number of unit train grain loading facilities in Ohio to double since 1976.

The primary reason for the proliferation of unit train grain loading stations is the fact that increased diesel fuel prices have decreased the maximum distance a commodity can be shipped by truck before trucking costs become prohibative. For example, in 1978 when the price of diesel fuel was approximately 40 cents per gallon, a grain shipper could afford to truck grain as far as 78 miles to a water port in Ohio before trucking costs would become excessive. A shipper who was more than 78 miles away from a water port would have been better off delivering grain to a nearby rail shipper. In 1979, diesel fuel prices averaged 62 cents per gallon and the maximum trucking distance was reduced to 69 miles. An 86 cents per gallon average in 1980 made it economical to truck grain only 61 miles before rail became the optimal mode of transportation. It is likely that the price of diesel fuel could increase to $2.00 per gallon by 1984. At this price the break-even distance would decrease further to 39 miles.

Table 6 lists unit train facilities for grain in Ohio for 1980. Most large grain firms have plans to build more of these facilities in coming years. Even grain firms in the water port cities of Cincinnati and Toledo are using unit trains to increase capabilities to ship grain to many different markets. In Toldeo the presence of unit train facilities is especially significant

Table 6: Unit Train Loading Stations For Grain In Ohio, 1980

Location (County)	Firm	Storage Capacity (1000 bu.)	Carrier
1. Alger (Hardin)	Ohio Farmers, Inc.	900	Cr
2. Arcanum (Darke)	Continental Grain Co.	775	BO
3. Bellevue (Huron)	Central Soya Co., Inc.	5,700	NW
4. Bloomingburg (Fayette)	Queen City Grain, Inc.	930	BO
5. Botkins (Shelby)	Botkins Grain & Feed Co.	800	BO
6. Cincinnati (Hamilton)	Central Soya Company, Inc.	4,200	CR
7. Cincinnati	Early & Daniel Company	12,066	B+O
8. Cincinnati	Indiana Grain-Queen City Elev.	1,733	B+O
9. Columbus (Franklin)	Continental Grain Co.	2,900	NW
10. Columbus	International Multifoods	1,250	CR
11. Columbus	Landmark, Inc.	5,600	CR
12. Coshocton (Coshocton)	Coshocton Grain Company	1,100	CR
13. Findlay (Hancock)	Hochstettler Grain Co.	1,750	NW
14. Fostoria (Hancock)	Ohio Farmers, Inc.	7,500	BO/NW
15. Grafton (Lorain)	Landmark, Inc.	750	BO/CR
16. Harpster (Wyandot)	The Pillsbury Co.	1,500	CO
17. Huron (Erie)	The Pillsbury Co.	1,900	CR
18. Jeffersonville (Fayette)	Fayette Landmark, Inc.	1,200	DTI
19. Kenton (Hardin)	Landmark, Inc.	1,050	CR
20. Latty (Paulding)	Landmark, Inc.	1,200	NW
21. Lilly Chapel (Madison)	The Pillsbury Co.	1,600	CR
22. Lima (Allen)	Cargill, Inc.	2,150	CR
23. Mansfield (Richland)	Ohio Farmers, Inc.	1,250	BO/CR
24. Marion (Marion)	Central Soya Co., Inc.	5,000	CR
25. Mechanicsburg (Champaign)	The Ohio Grain Co., Inc.	2,542	CR
26. Metamora (Fulton)	The Metamora Elevator Co.	955	DTI
27. Montpelier (Williams)	Williams Landmark, Inc.	1,350	NW
28. Sidney (Shelby)	Landmark, Inc.	1,400	CR
29. South Charleston (Clark)	Clark Landmark, Inc.	1,300	CR/DTI
30. Toledo (Lucas)	The Andersons, Inc.	17,000	CR
31. Toledo	Cargill, Inc.	4,900	NNW
32. Toledo	Mid-States Terminals	9,000	BO
33. Troy (Miami)	Continental Grain Col	2,270	BO
34. Uniopolis (Auglaize)	Auglaize Landmark, Inc.	725	DTI
35. Urbana (Champaign)	Champaign Landmark, Inc.	1,050	CR

Source: Pioneer Hybrid International, Inc.

because grain firms there are no longer forced to store grain during the winter season when the Great Lakes system is impassable. At least one Toledo firm has plans to build unit train loading stations in southcentral and southeastern Michigan. According to the nature of the demand for grain, these trains could either transport grain to water facilities at Toledo or proceed to export facilities on the east coast.

Table 7 lists unit train facilities for coal shipments which originate and/or terminate in Ohio. Coal dominates unit train movements in Ohio, accounting for 49 percent of all unit train shipments. Most of this coal moves from mines to power plants in Michigan or Ohio.

The advent of the unit train has altered the role of the small country elevator in the Ohio grain marketing system. In many areas the railroads consider branchline service to small volume grain shippers to be uneconomical. Until the 1980 Staggers Rail Act was passed, railroads were forced by the Interstate Commerce Commission (ICC) to maintain almost all branchline service. To reduce losses on uneconomical lines, railroads deferred maintenance and allowed service to deteriorate to a point where many grain shippers switched from rail to trucking.

With the passage of the Staggers Act and the Northeast Rail Service Act of 1981, rail abandonment has been accelerated and many country elevators, faced with a loss in rail service, have been forced to make adjustments. Impact analysis studies have been done on the effects of rail abandonment on shippers and

Table 7: Unit Train Facilities for Coal That Originates or Terminates in Ohio, 1979

CARRIER	ORIGIN	DESTINATION(S)	CARS/TRAIN
BO/CO	Egypt, OH	Essexville, MI	100
CR	Georgetown, OH	Monroe, MI	85
CR/CO	Sunny Hill, OH	W. Olive, MI	107
CR	Powhatan, OH	Midland, MI	100
CR	Riedsburg, PA	Ashtabula, OH	70
CR	Horeb Church, PA	Willoughby, OH	100
CR	Powhatan, OH	Willoughby, OH	-
CR	Nacco, OH	Willoughby, OH	-
MGA/CR	Fairview, W. Va.	Ashtabula, OH	75
MTR/CR	Champion, PA	Ashtabula, OH	75
N&W	S.E., OH	N.E., OH	105

Source: Ohio Rail Transportation Authority

communities which have lost rail service. Larson and Vogel[2/] found that the abandonment of 17 light density lines in central and western Ohio would have very little impact on aggregate grain transportation costs. Grain transportation costs were expected to increased by only $253,197.00 which is less than one-half of 1 percent of the total annual cost of moving grain produced in the 31 county area of the study. The alternative to abandonment was to upgrade and continue service with nearly $4 million in subsidies which the Ohio Department of Transportation Branch Line Plan estimated would have been needed for 1976 alone. Larson and Vogel's survey detected few, if any, examples of shippers which were "captive" to rail services, as few firms stated they would incur a substantial increase in transportation costs due to abandonment.

Baumel, Miller, and Drinka suggest in their study of several Iowa communities which have had several years to adjust to rail line abandonments there was no compelling evidence to indicate permanent commercial damage to the communities involved.[3/] Most businesses which previously had utilized rail services are now receiving and shipping merchandise by truck.

[2/] Donald W. Larson and Robert C. Vogel. "Railroad Abandonment: Optimal Solutions and Policy Outcomes." Chapter IV in Economic Regulation: Essays in Honor of James R. Nelson. William G. Shepherd and Kenneth D. Boyer (ed). East Lansing, Michigan State University Press, Forthcoming, 1981

[3/] C. Phillip Baumel, John J. Miller, and Thomas P. Drinka, An Economic Analysis of Upgrading Branch Lines: A Study of 71 Lines in Iowa, (Ames: Iowa State University, March 1976), pp. 181, 182.

In conversations with operators of Ohio agricultural firms which had lost or were about to lose rail service, this writer found that most firms were amenable to the movement away from light density branchline rail service. For the most part, these firms expected to continue to do business by utilizing trucking services. Many county elevators which have lost rail service, now serve as collection points for grain from where truckloads can be shipped to unit train loading stations.

Not all grain elevators and shippers in Ohio have been willing to give up rail service when the railroads have proposed abandonment. The Spencerville-Elgin rail line, running from Lima to Wren and Ohio City to Rockford, is a prime example of shipper efforts to maintain rail service. With aid from funds provided by the Rail Service Continuation Assistance Program[4/] the Spencerville-Elgin Railroad, a short-line company, has leased the track from the Erie-Lackawanna Railroad since 1978. Under this arrangement the Federal government paid 70 percent of the deficit resulting from line operation. Only weeks before October 1, 1981 when the federal subsidy was scheduled to end, the track was sold to ORTA for $3.8 million. ORTA purchased the line with 10 percent state and 90 percent federal funds to "allow continued freight service to agri-business shippers in northwest Ohio."

The purchase by ORTA of the S-E line was intended to eliminate the $1,300 per day cost of leasing the line. ORTA reasoned that

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[4/] The RSCAP was a federal program instituted under the Regional Rail Reorganization Act of 1973 (3R Act) and extended under Title VIII of the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act).

without the lease cost burden the railroad can become viable. Under the present agreement, ORTA will hold the line for one year, after which the Spencerville-Elgin Railroad company must pay back the state's share of the purchase price. The federal share does not have to be paid back as long as the line remains viable. If the line fails, it will be sold and the proceeds will be used to pay off the federal portion.

Several agri-business owners in Allen and Van Wert counties where the S-E line is located are opposed to ORTA's plan. This group feels the S-E rail line cannot be viable without some form of government subsidies and the cost of these subsidies eventually will be reflected in higher local taxes. ORTA points out that if the S-E line cannot be sold to private interests, the scrap value of the line is sufficient to at least recover the state and federal monies used to buy the line. According to ORTA, this element of scrap value safeguards the public interest.

Rail abandonment and the role of government in the railroad industry are both controversial and complex issues. Further attention will be given to these topics later in this report.

Impacts of the Staggers Act on Ohio Agriculture

In an attempt to improve the competitive capabilities of the railroad industry, the Staggers Rail Act of 1980 was signed into law by President Jimmy Carter on October 14, 1980.

Majors items of consideration in the Staggers Rail Act of 1980 are as follows:[5/]

[5/] C. Phillip Baumel, Staggers' First Impact: Reduced Rates, Grain Journal, July 10, 1981.

- Permits the railroads to change rates up or down within specified rail revenue to variable cost ratios provided 20 days notice be given for rate increases and 10 days for rate decreases.

- Railroads are permitted to increase rates quarterly to recover inflation-induced costs.

- Permits the railroads to make surcharges on traffic originating or terminating on certain light density rail lines.

- Legalizes contracts between railroads and shippers.

- Sets a maximum time limit - 330 days after application - for rail abandonment proceedings. Criteria for abandonments wasn't changed.

- Limits ICC authority to issue car service orders to where it finds equipment shortages, traffic congestion, or other failures which have an adverse effect on rail service in the United States.

- Prohibits railroad companies from discussing, voting, or agreeing on single line rates or joint rates except with a rail carrier that forms a part of a particular single route.

Since the Staggers Act, railroads have taken advantage of its increased rate flexibility provisions. This has resulted in a positive impact on railroad earnings. According to the Association of American Railroad, U.S. railroad companies reported ordinary income of $636.4 million in the first quarter of 1981, compared with $263.0 million for the same period in 1980.

Since the passage of the Staggers Act, railroad rates have become more volatile and complex. With increased rate-making flexibility, railroads are better able to react to changing conditions in the transportation industry. For example, the current slowdown in the U.S. economy has resulted in declining industrial traffic and depressed truck and barge rates. Under the Staggers Act, the

railroads are able to react to low barge and truck rates by lowering selected rates of their own. In the past, the time constraint of having to receive ICC approval for all rate changes hindered the abilities of railroads to react quickly to market conditions. Railroads were also reluctant to lower rates because they had no assurance rates could be raised once they had been lowered.

Unit Train Rates Remain Competitive

Changes in the rail rate structure since the passage of Staggers have had both positive and negative effects on agricultural shippers. Unit train rates, for example, have remained very competitive. Conrail unit train rates for grain moving from Columbus to East Coast export facilities are generally lower for 1981 than they were in 1980. Table 8 is a 1980 Conrail schedule of unit train rates (100-car) for grain moving from Columbus to export facilities in Albany, Philadelphia or Baltimore. At that time Conrail charged the same rate for every trip but the rate went down according to the total number of trips a shipper had contracted.

Table 9 gives sample rates from Conrail's October 1981 rate schedule for 100-car unit trains carrying grain from Columbus to East Coast export destinations. The design of the 1981 rate schedule is different in that the rate for each additional trip is slightly lower than the rate for the previous trip. Grain shippers have found this system to be more complicated than the same-rate-for-every-trip plan which Conrail formerly offered. What causes complications is that average rates must be calculated

Table 8: Conrail Unit Train Rates (100-car) For Grain Moving From Columbus, Ohio to Export Facilities in Albany, Philadelphia, or Baltimore, April 1980 (Pre-Staggers). (Railroad Owned Equipment)

	Number of Trips Per year				
	5 - 19	20-29	30-34	35-44	45 and over
	- - - - Dollars Per Ton - - - -				
Grain Rate	12.80	12.40	12.00	11.80	11.60

Source: Conrail

Table 9: Sample Trip Rates From Conrail's Sliding Rate Schedule for Grain Unit Trains (100-car) Moving From Columbus, Ohio to Export Facilities in Albany, Philadelphia, or Baltimore, October, 1981. (Railroad Owned Equipment)

	TRIP NUMBER									
	1	2	3	4	5..	10..	20..	30..	40..	45
	- - - - - Dollars Per Ton - - - - -									
Grain Rate	13.13	13.07	13.00	12.94	12.88	11.99	11.34	10.41	9.33	8.87

Source: Conrail

Table 10: Average Rates Per Trip for Grain Shippers Using Conrail's Sliding Rate Schedule for Unit Trains (100-car) Moving From Columbus, Ohio to Export Facilities in Albany, Philadelphia, or Baltimore, October, 1981. (Railroad Owned Equipment)

	NUMBER OF TRIPS								
	5	10	15	20	25	30	35	40	45
	- - - - Dollars Per Ton - - - -								
Grain Rate	13.00	12.56	12.31	12.10	11.91	11.70	11.46	11.22	10.98

Source: Conrail

whenever a shipper makes decisions involving unit train shipments. Under Conrail's sliding rate schedule a shipper's average costs per trip are not immediately evident. Table 10 gives the average costs per trip according to the number of trips made. This table can be used to compare 1981 unit train rates with the 1980 unit train rates in Table 8.

The Chessie Railroad offers 65-car unit train rates of $11.98 per ton with a 60 trip minimum. The N & W offers 60 trip minimum rates for 100-car shipments of $11.81 per ton. At first glance, the Conrail average rate for 45 trips of $10.98 per ton makes Conrail the least expensive railroad on which to ship grain. But in order to enjoy the 45 trip average rate a shipper on Conrail must make all 45 trips within one year, using the same set of train equipment. The average turn-around time for a train making 45 trips in one year is 8 days. Ohio grain shippers report that it is practically impossible to make 45 trips to the east coast annually with a single set of equipment. A more realistic number is 35-37 trips. The Chessie and N & W allow four sets of train equipment to be used in making the 60 trip minimum. The increased availability of equipment results in a smoother, more continuous flow of operations for grain shippers. This factor makes the Chessie and the N & W very competitive with Conrail in attracting unit train shippers.

It should be noted, however, that high volumes of grain are needed in order to take advantage of the rate discounts offered by the railroads. Careful planning by even the largest Ohio grain

firms is necessary to ensure grain availability at the proper times so unit train discounts can be captured.

Domestic Grain Rates Generally Higher

Rates for domestic grain shipments are more complicated and generally higher since the Staggers Act was passed. Conrail has cancelled all joint rates for shipments which switch from Conrail to another line or vice versa. A joint rate is a single rate a shipper pays for a commodity shipment which must utilize the services of more than one railroad company. Joint rates are usually lower than the sum of the point-to-point rates each railroad normally charges for traffic on a particular line segment. Conrail attempted to capture more customers by making it more expensive to switch to other railroads along a route. As a result, shippers using Conrail must either pay the higher cost of paying several rates for a single shipment or allow Conrail to route traffic along Conrail lines - a plan which inevitably calls for longer shipping times.

Another factor which has affected the cost of shipping grain is increased switching charges. While not directly related to the Staggers Act, the increase in switching charges has certainly been encouraged by railroad deregulation. In the past two years the fee for switching traffic from one railroad to another has gone up from $90 per car to $177 per car. Switching charges have been increased to the point where the number of options available to a shipper could be substantially limited. Shippers fear that switching charges will go beyond the point of recovering costs and

become retaliatory measures used by railroad companies against one another. This contingency would be harmful to shippers and carriers alike.

Changing Rates and Railroad Contracts

Grain is often sold 2-3 months in advance. A seller's profits are determined by a narrow margin which exists between the selling price and the costs of buying and shipping the grain to the buyer. If transportation costs increase during the 2-3 month period before the grain is shipped, a seller's profits can be wiped out. The enhanced rate-making flexibility given to the railroads by the Staggers Act has increased the risk that shipping rates could change on short notice.

Under Staggers, shippers have the right to sign contracts with railroads and lock in a rail rate. But grain shippers who sign a contract with a railroad lose some potential to benefit from changes in the grain market. Grain supplies are not always sure and a shipper who signs a specific origin-destination contract 2-3 months in advance, runs the risk of defaulting on the contract if grain is not available. Railroad contracts do not aid shippers in the grain industry as much as they do shippers in the coal industry; for example, where demand is predictable and supply is usually assured.

The Northeast Rail Service Act of 1981

Under the 4R Act of 1976 Federal government subsidies to Conrail were to end October 1, 1981. Since the Federal government owns the controlling stock in Conrail, President Reagan was plan-

ning to order that the railroad be split up and sold to private interests. Protests by Conrail supporters eventually led to a compromise in the form of the Northeast Rail Service Act of 1981. The bill, which was signed into law August 13, 1981, gives Conrail two years to become profitable.

The biggest impact the NRSA will have on Conrail concerns rail abandonment procedures. Section 1156 of the Act includes the following provisions:

- Conrail is exempt from the ordinary abandonment procedures under the Staggers Act of 1980 which other railroads must follows.

- Conrail is granted the authority to abandon a line within 90 days after an application is filed unless, within such a 90-day period, an offer of financial support is made from an interested party.

- Interested parties are provided an opportunity to purchase at 75 percent of liquidation value, a line which has been approved for abandonment. The purchase offer must be made within a 120-day period following abandonment approval. Conrail must honor any such offer.

The provisions listed above apply to all applications for abandonment filed by Conrail prior to December 1, 1981. After this date, Conrail must file a "Notice of Insufficient Revenues" for each line it wishes to abandon before it can file an abandonment application. Essentially, this requirement extends the abandonment process an additional 90 days. The lines which are considered by Conrail to be "real losers" are expected to be the lines which are proposed for abandonment before December 1st. ORTA anticipates a flurry of abandonment applications before this cutoff date.

A party which offers to purchase a line within the 90 day period following a filing for abandonment must pay 100 percent of the total purchase price which Conrail has set. In doing so, the buyer has the option of purchasing only a portion of the line and no restrictions are placed on the sale. If a line is bought at 75 percent of its liquidation value, the buyer must purchase the entire line and operate it for not less than 5 years after the sale. The proceeds from the liquidation of a line which was purchased under this arrangement and was not operated for at least 5 years after the purchase must be paid to the Federal government.

Ohio Railroads Identified for Potential Abandonment

Under the 4R Act, ICC classifications were created to force railroads to publicize their plans for railroad abandonment. This method of classification allows shippers, communities, and states to take appropriate action before a line is abandoned. The ICC categories created by the 4R Act are:

Category I: lines anticipated to be abandoned in 3 years.

Category II: lines under study for potential abandonment.

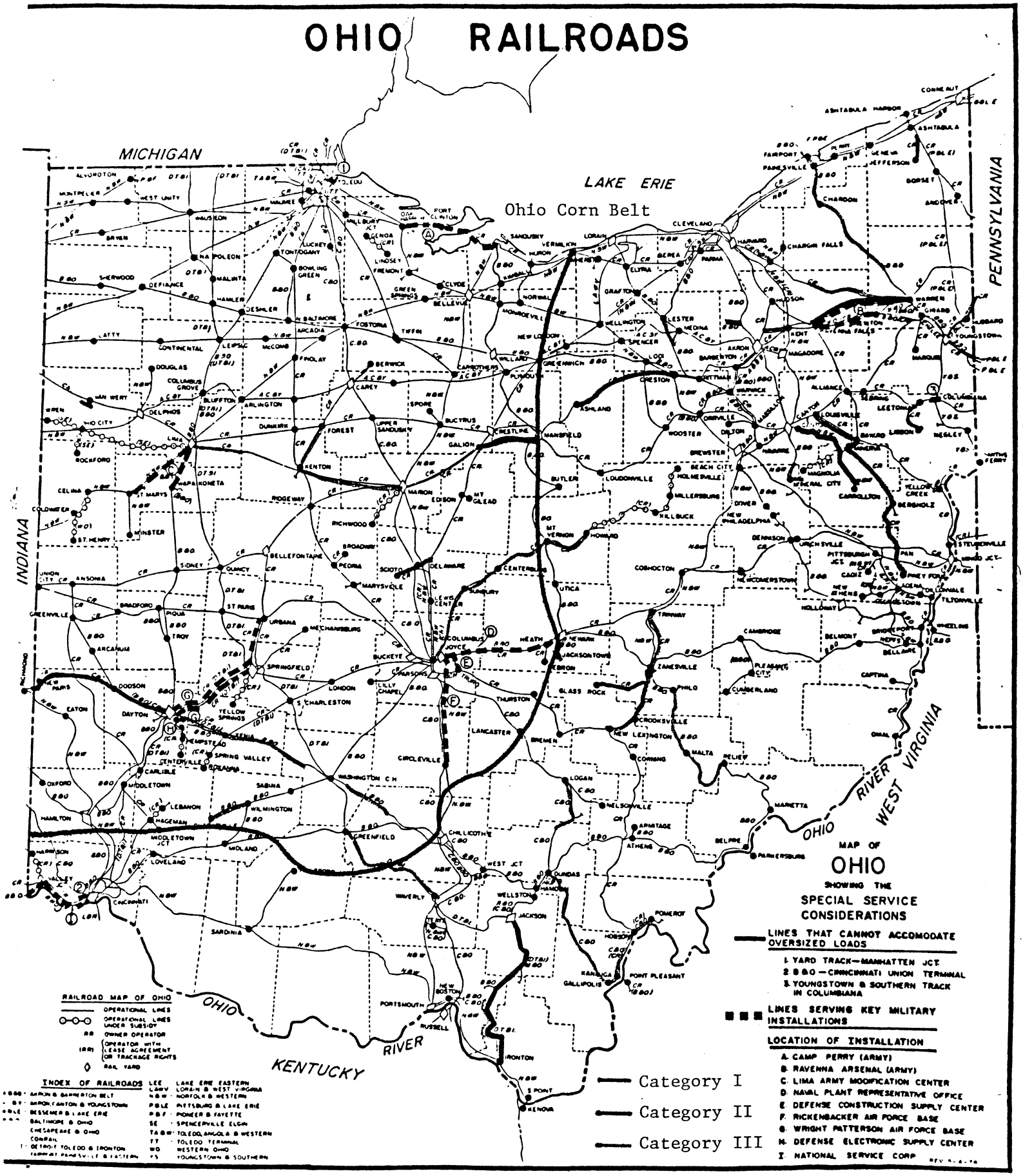
Category III: lines pending abandonment.

Category IV: lines operating under subsidy

Category V: all other lines.

Figure 2 shows the railroad lines in Ohio which have been considered for abandonment prior to the passage of the NRSA. Since the NRSA became law, Conrail has cancelled all previous abandonment plans and is currently preparing a new list of abandonment candidates. Some abandonment applications have already

Figure 2: Ohio Railroad Lines Considered for Abandonment, According to ICC Category



Source: Ohio Rail Transportation Authority

been filed. Figure 2 is intended to give the reader an indication of which lines Conrail has considered to be abandonment candidates in the past. Railroad lines not operated by Conrail should have the same category status as is indicated in Figure 2.

The Role of Government in the Railroad Industry

The NRSA removes from Conrail the burden of proof to show that a rail line is not viable. This legislation and other laws which have recently deregulated the transportation industry were passed on the premise that the forces of supply and demand would provide efficient and effective services to the public. In effect the Federal government is admitting that regulations which force a railroad to provide services to customers at articially low prices do not ensure high quality service.

A railroad firm, like any investor, will allocate financial resources to the activity which provides the greatest return on investment. The rail company is not likely to provide the steady flow of capital needed to maintain the track and equipment of a rail line with a low return on investment. As maintenance is deferred over a number of years the quality of service deteriorates to a point where operations are both unsatisfactory and dangerous. The crisis situation which has been building for years arrives when the carrier finally proposes abandonment and shippers demand that rail service be upgraded and maintained. The abandonment which government regulations were designed to avert, now looms like never before.

Congress' response to the railroad crisis of the 1970s was to enact subsidy programs and bail out railroads which otherwise

would have gone bankrupt. Many railroad lines, vital to U.S. industry and commerce were rescued by the 3R Act and the 4R Act. But problems resulted when the subsidy strategy and continued rate regulation increased dependence on the Federal government and decreased incentives to cut costs and compete with other transportation modes. The Staggers Act of 1980 and the Northeast Rail Service Act of 1981 are attempts by the government to finally remove the multi-billion dollar albatross which government intervention had become.

What are the roles of the national and state governments in the railroad industry? ORTA states its purpose is to provide sound and efficient rail freight transportation and develop a safe, efficient intercity rail passenger system for Ohio. But what makes rail transportation "sound" and "efficient"? Events of the past have shown that a railroad system which is privately owned but government subsidized is almost certain to be inefficient and unsound.

The Ohio Constitution requires that shippers, rather than the state, pay the non-Federal share of rail service continuation subsidies. Larson and Vogel[6/] state that this may have been an important factor contributing to the abandonment of non-economic rail lines in Ohio. Table 11 compares rail mileage in Ohio in the different ICC categories with the mileage in Indiana, where tax monies can be used to pay the non-Federal share of the subsidy. Total mileage for the two states is nearly equal, but Indiana has

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[6/] Larson and Vogel, op. cit.

Table 11: Rail Mileage by ICC Categories in State Rail Plans for Ohio and Indiana as of August, 1978

ICC Categories	Ohio	Indiana
Total Rail Mileage	6,700	6,405
Category I: anticipated to be abandoned in three years.	138.8	209.5
Category II: under study for potential abandonment.	154	270.9
Category III: pending abandonment.	185.8	133.5
Category IV. operating under subsidy.	160	382.0

Source: Larson and Vogel

more than twice as many miles operating under subsidy as Ohio. Moreover, Ohio has more miles pending abandonment, while Indiana has more miles in Categories I and II which seem more likely to end up operating under subsidy in the case of Indiana. The question of who pays the non-Federal share of rail service continuation subsidies and the impact on abandonment decisions is clearly an important issue for further study.

Huge Tax Savings For Railroads Under 1981 Tax Law

Railroads are receiving a different kind of help from the government as a result of the 1981 Tax Law. The new law permits railroads to start depreciating about $8 billion in rail track over periods ranging from 5 years to 50 years.[7/] The biggest portion of the write-offs occur in 1981 and will reduce or eliminate the railroads' federal tax bills. The more profitable railroads are expected to depreciate track at a faster rate than marginally profitable rail companies. This is because the shorter the write-off period, the bigger each year's income tax deductions will be.

Hopefully the additional cash flows resulting from the new law will be used to upgrade rail facilities and reduce debt. The tax changes come at a time when railroads are just beginning to exercise the freedoms granted to them by the Staggers Act. If Staggers succeeds in protecting return on investment in the railroad industry, then railroad companies will channel bigger cash flows into railroad structure.

7/ "Tax Changes Give Railroads a Big Break." The Wall Street Journal, 27 October, 1981, p. 47.

A Time of Transition

The railroad industry has undergone tremendous change in the last decade, especially in the last year with the advent of deregulation. How well the industry will adjust to competition among railroad firms is yet to be seen. The future of Conrail remains an enigma. Increasing costs of energy will more strictly define the roles of trucking for short-distance hauls and rail and water movements for long-distance transport. The transitions now taking place in transportation are complex, challenging, and at times painful for shippers and carriers alike. Ohio agriculture can survive these transitions best by remaining flexible and innovative, ready to benefit from new opportunities in transportation.

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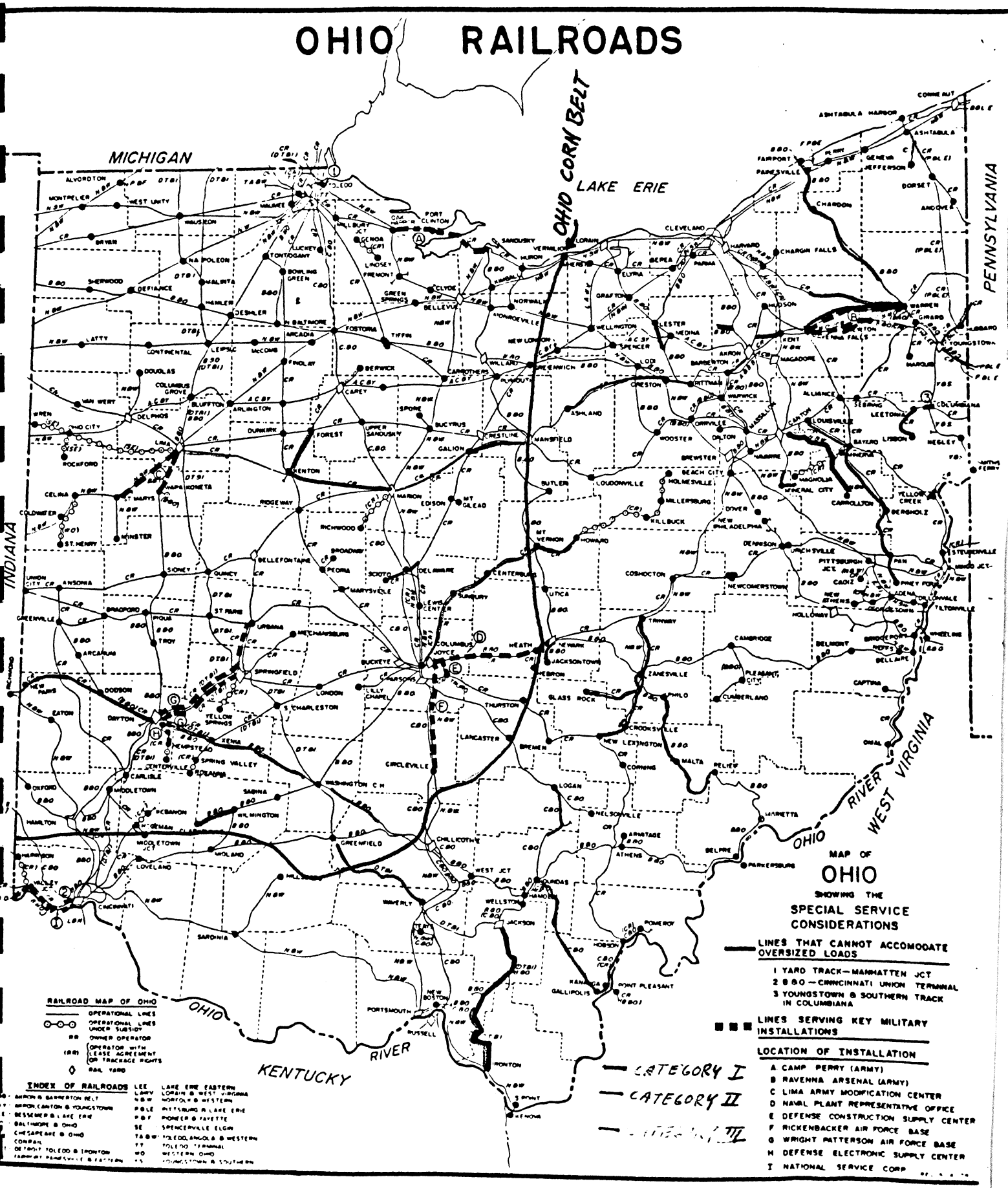
"Tax Changes Give Railroads a Big Break." The Wall Street Journal, 27 October 1981, p. 47.

FIGURE 3-1


OHIO RAILROADS
MICHIGAN
INDIANA
PENNSYLVANIA
WEST VIRGINIA
LAKE ERIE
OHIO CORN BELT
OHIO RIVER
KENTUCKY RIVER
MAP OF
OHIO
SHOWING THE
SPECIAL SERVICE
CONSIDERATIONS
LINES THAT CANNOT ACCOMODATE OVERSIZED LOADS
1 YARD TRACK—MANHATTEN JCT
2 B&O—CINCINNATI UNION TERMINAL
3 YOUNGSTOWN & SOUTHERN TRACK IN COLUMBIANA
LINES SERVING KEY MILITARY INSTALLATIONS
LOCATION OF INSTALLATION
A CAMP PERRY (ARMY)
B RAVENNA ARSENAL (ARMY)
C LIMA ARMY MODIFICATION CENTER
D NAVAL PLANT REPRESENTATIVE OFFICE
E DEFENSE CONSTRUCTION SUPPLY CENTER
F RICKENBACKER AIR FORCE BASE
G WRIGHT PATTERSON AIR FORCE BASE
H DEFENSE ELECTRONIC SUPPLY CENTER
I NATIONAL SERVICE CORP
CATEGORY I
CATEGORY II
CATEGORY III
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A&BV - AKRON, CANTON & YOUNGSTOWN
BR&E - BESSEMER & LAKE ERIE
B&O - BALTIMORE & OHIO
C&O - CHESAPEAKE & OHIO
CONRAIL
DT&I - DETROIT TOLEDO & IRONTON
FW&WP - FAIRPORT PAINESVILLE & EASTERN
LEE - LAKE ERIE EASTERN
L&WV - LORAIN & WEST VIRGINIA
N&W - NORFOLK & WESTERN
P&LE - PITTSBURG & LAKE ERIE
P&F - PIONEER & FAYETTE
SE - SPENCERVILLE ELGIN
T&OC - TOLEDO, ANGOLA & WESTERN
TT - TOLEDO TERMINAL
WO - WESTERN OHIO
YS - YOUNGSTOWN & SOUTHERN